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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,585	04/11/2006	Michael Grass	DE 030351	9559

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EXAMINER	
KAO, CHIH CHENG G	
ART UNIT	PAPER NUMBER
2882	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/575,585	GRASS ET AL.	
	Examiner	Art Unit	
	Chih-Cheng Glen Kao	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7,8,10,12 and 13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7,8,10,12 and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5, 7, 8, 10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Lazarev et al. (EP 1062914).

2. Regarding claims 1 and 10, Lazarev et al. discloses an apparatus and method comprising: a source of radiation (fig. 6, #1); and a radiation detector array (fig. 8, #3); wherein the source of radiation is adapted to generate a fan-shaped radiation beam (fig. 6, #8); wherein the radiation detector array (fig. 6, #3) is asymmetrically arranged with respect to the fan-shaped radiation beam, wherein a first part of the radiation detector array is used for a cone beam data acquisition (fig. 6, via #8) and a second part of the radiation detector array is used for scatter radiation measurements (fig. 6, via #7), wherein the source of radiation (fig. 2, #1) and the radiation detector array (fig. 2, #3) are rotatable around a rotational axis extending through an examination area for receiving the object of interest (fig. 2, #4); wherein the source of radiation (fig. 2, #1) is arranged opposite to the radiation detector array (fig. 2, #3) during scanning; wherein the source of radiation generates a fan-shaped x-ray beam (fig. 6, #8) adapted to penetrate the object of interest (fig. 6, #4) in the examination area in a slice plane; wherein the radiation detector array

(figs. 2 and 6, #3) includes a plurality of detector lines each with a plurality of detector elements arranged in a line; wherein the plurality of detector lines are arranged parallel to the slice plane (fig. 6, defined by #8); wherein a primary radiation (fig. 6, #8) attenuated by the object of interest (fig. 6, #4) impinges on a first line of the plurality of detector lines (fig. 6, of #3); wherein the first line is not a second line of the plurality of detector lines; wherein the second line (fig. 6, line of #3 close to the geometrical center) is extending close to the geometrical center of the radiation detector array, and wherein the first line is the last line of the radiation detector array (fig. 5, #9) in the direction along which the object of interest (fig. 2, #4) is displaced (col. 12, lines 15-17) with respect to the radiation detector array.

3. Regarding claim 2, Lazarev et al. further discloses wherein the radiation detector array (fig. 6, #3) is arranged such that the slice plane intersects the radiation detector array at a side thereof.

4. Regarding claim 3, Lazarev et al. further discloses wherein the object of interest is displaced with respect to the slice plane along a scanning direction which intersects the slice plane at an angle (col. 12, lines 15-17); wherein a location where the slice plane intersects the. radiation detector array is offset with respect to a geometrical center of the radiation detector array (fig. 6, #3); and wherein the location is offset from the geometrical center in the scanning direction (big arrow in fig. 2).

5. Regarding claim 4, Lazarev et al. further discloses wherein the radiation detector array (fig. 6, #3) comprises a plurality of detector lines; and wherein the fan-shaped radiation beam has a width (fig. 6, #8) of at least two detector lines of the plurality of detector lines when the radiation beam impinges onto the radiation detector array (fig. 6, #3) after transmission through the object of interest (fig. 6, #4).

6. Regarding claims 5 and 12, Lazarev et al. further discloses wherein the fan-shaped radiation beam has a width (fig. 6, #8) of at least two detector lines of the plurality of detector lines when the radiation beam impinges onto the radiation detector array (fig. 6, #3) after transmission through the object of interest (fig. 6, #4) and wherein only one first part of the radiation detector array (fig. 6, #3) is used for a cone beam data acquisition (fig. 6, via #8) and only one second part of the radiation detector array is used for scatter radiation measurements (fig. 6, via #7).

7. Regarding claim 7, Lazarev et al. further discloses wherein the first line (fig. 6, defined by #8) is arranged at a distance from the geometrical center in a direction along which the object of interest (fig. 6, #4) is displaced (col. 12, lines 15-17) with respect to the radiation detector array (fig. 6, #3) during scanning.

8. Regarding claim 8, Lazarev et al. further discloses wherein a third line of the plurality of detector lines measures a scatter radiation (fig. 6, #7) scattered from the object of interest (fig. 6, #4); and wherein the third detector line is offset from the first detector line (fig. 6, defined by #8)

in a direction along which the object of interest is displaced (col. 12, lines 15-17) with respect to the radiation detector array (fig. 6, #3) during scanning.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lazarev et al. in view of Li (US 6459755).

For purposes of being concise, Lazarev et al. discloses an apparatus as recited above.

However, Lazarev et al. does not specifically disclose a computer readable medium encoded with a computer program for operating the apparatus.

Li teaches a computer readable medium encoded with a computer program (fig. 2, in #36) for operating an apparatus.

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the apparatus of Lazarev et al. with the computer readable medium of Li, since one would have been motivated to make such a modification for more easily executing a process via computer control.

Response to Arguments

10. Applicant's arguments filed January 29, 2009, have been fully considered but they are not persuasive.

Regarding at least claims 1, 10, and 13, in response to Applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a single detector array) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant further argues that it is not clear whether the primary radiation beam 8 impinges the first or last detector 9. The Examiner disagrees. As seen in figure 5 and as further exemplified in figure 2, the primary radiation beam 8 does impinge on the last detector 9 (fig. 2, at #5), since the detector 9 is in the back of the line. The primary radiation (fig. 2, from #1 and 2) impinges on a first line (figs. 2 and 5, #5) which is the last line (fig. 2, in the back of the detector array including #3 and #9 at #5) of the radiation detector array (figs. 2 and 5, including #3 and #9 at #5) in the direction along which the object of interest (fig. 2, #4) is displaced (fig. 2, displaced via #11) with respect to the radiation detector array (figs. 2 and 5, #3 and 5).

Therefore, Applicant's arguments are not persuasive, and the claims remain rejected.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (571)272-2492. The examiner can normally be reached on M - F (9 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chih-Cheng Glen Kao/
Primary Examiner, Art Unit 2882